

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF:

GROUP: 1796

Hiroshi TAKEI, et al.

SERIAL NO: 10/667,671

EXAMINER: ZIMMER

FILED: September 23, 2003

FOR: HEAT CONDUCTIVE SILICONE RUBBER COMPOSITE SHEET

DECLARATION UNDER 37 C.F.R. § 1.132

COMMISSIONER FOR PATENTS

ALEXANDRIA, VIRGINIA 22313

Sir:

Now comes Akio SUZUKI who deposes and states that:

1. I am a graduate of OSAKA UNIVERSITY and received my bachelor's degree in the year 1975.

2. I have been employed by Shin-Etsu Chemical Co., Ltd. for 33 years as a researcher for R&D in the field of applications of silicones.

3. I conducted the following measurement using an optical microscope to show that all of the polyethylene-naphthalate (PEN) films with a thickness of 25 μm available under the brand name of "TEONEX" from Teijin DuPont are non-porous in the sense of having no pores of at least 0.3 mm in diameter. Thus, I conducted the measurement with respect to TEONEX Q51 (thickness: 25 μm), TEONEX Q51DW (thickness: 25 μm), TEONEX Q81 (thickness: 25 μm), and TEONEX Q83 (thickness: 25 μm).

In addition, for the purpose of reference, I also conducted the measurement

with respect to TEONEX Q65F (thickness: 100 μm) and TEONEX Q65FA (thickness: 100 μm) in the same way. However, I did not conduct the measurement with respect to TEONEX Q72 film of 1.2-12.0 μm in thickness because I could not obtain it from Teijin DuPont.

Optical microscope photographs of these films were taken by means of an optical microscope (brand name: DIGITAL MICROSCOPE VHX-600, manufactured by KEYENCE CORPORATION). For each of the films, two photographs of different magnifications (x 500 and x1,000) were obtained and attached hereto.

As shown by the photographs, any of the TEONEX Q51, TEONEX Q51DW, TEONEX Q81, TEONEX Q83, TEONEX Q65F, and TEONEX Q65FA does not have observable pores. Specifically, it is clear that the films have no pores of at least 10.00 μm in diameter, much less pores of at least 0.3 mm in diameter.

4. The undersigned petitioner declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

5. Further deponent saith not.

Akio Suzuki
Akio SUZUKI

October 3, 2008
Date

Q51-25 μ m × 500

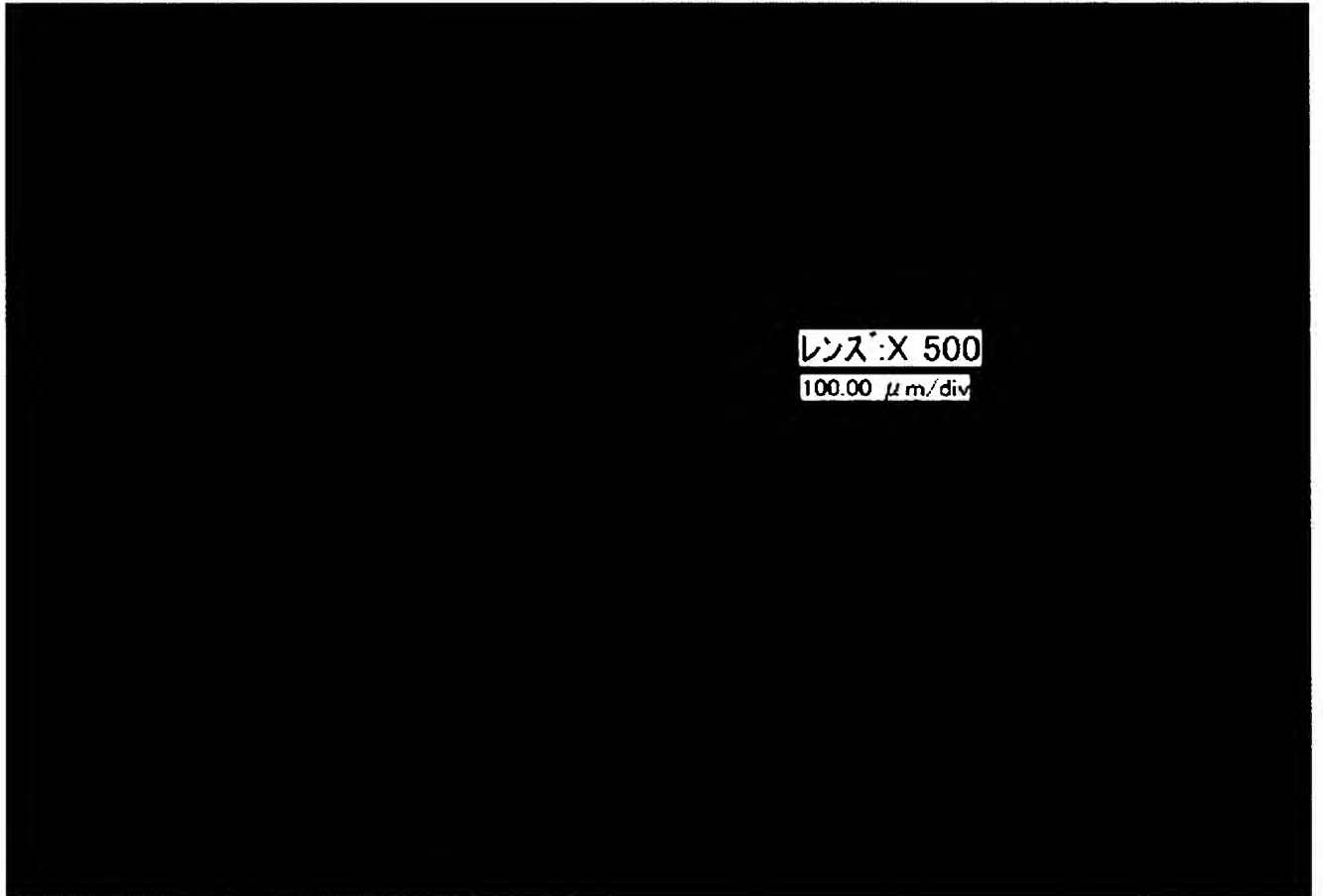


Q51-25 μ m \times 1000



レンズ:X 1000
100.00 μ m/div

Q51DW-25 μ m \times 500

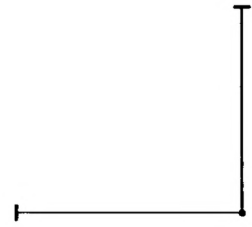


レンズ: X 500
100.00 μ m/div

Q51DW-25 μ m \times 1000

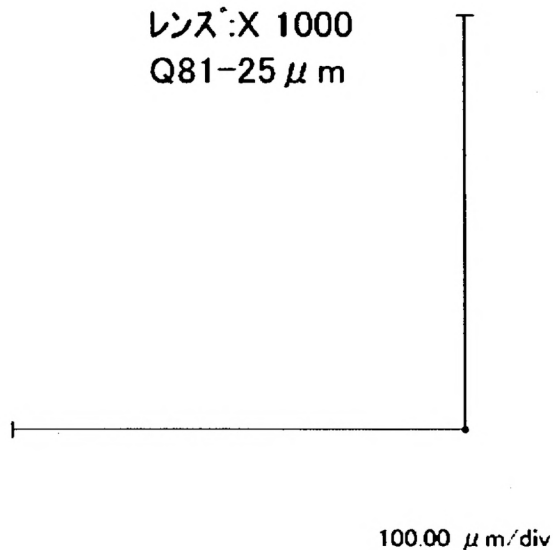


レンズ: X 500
Q81-25 μm

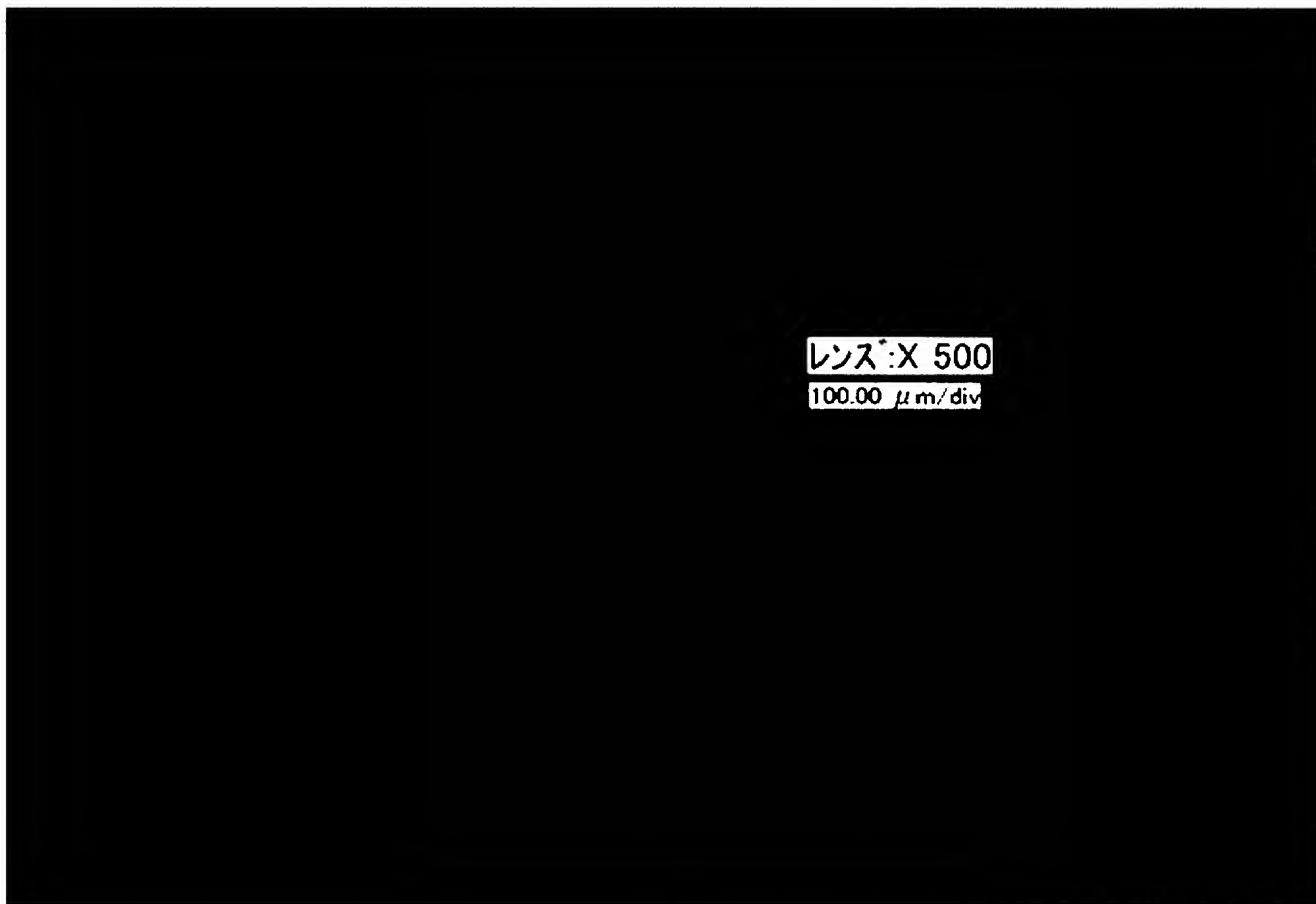


100.00 $\mu\text{m}/\text{div}$

レンズ: X 1000
Q81-25 μm



Q83-25 μ m × 500



レンズ: X 500
100.00 μ m/div

Q83-25 μ m \times 1000



レンズ: X 1000
100.00 μ m/div

Q65F-100 μ m \times 500



Q65F-100 μ m \times 1000



Q65FA-100 μ m × 500



レンズ: X 500
100.00 μ m/div

Q65FA-100 μ m \times 1000



レンズ: X 1000
100.00 μ m/div